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6 IN THE UNITED STATES DISTRICT COURT
7 FOR THE DISTRICT OF ARIZONA

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9 Tucson Herpetological Society, et al.,) No. 04-CV-00075-PHX-NVW
10 Plaintiffs,)
11 vs.)
12 Dirk Kempthorne, et al.,)
13 Defendants.)
14 _____)
15

16 The court has before it Plaintiffs' Motion for Summary Judgment (doc. # 109) and
17 supporting Memorandum (doc. # 110); Defendants' Cross-Motion for Summary Judgment
18 (doc. # 113) and supporting Memorandum (doc. # 114); and Plaintiffs' Reply (doc. # 115).

19 This is the continuation of a long-running dispute about the listing of the flat-tailed
20 horned lizard (*Phrynosoma mcallii*) ("FTHL" or "lizard") under the Endangered Species Act
21 of 1973 ("ESA" or "Act"), 16 U.S.C. §§ 1531 *et seq.* The Secretary of the Interior (the
22 "Secretary"), acting through the Fish and Wildlife Service¹ ("FWS"), proposed listing the
23 species for protection in 1993. 58 Fed. Reg. 62624 (noting documented and anticipated
24 population declines associated with widespread habitat loss, fragmentation, and degradation
25 due to human activities such as agricultural development, urban expansion, off-highway

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27 ¹The Fish and Wildlife Service administers the ESA with respect to species under the
28 jurisdiction of the Secretary of the Interior, including the flat-tailed horned lizard. 50 C.F.R.
§ 402.01(b).

1 vehicle (“OHV”) use, energy developments, and military activities). The Secretary moved
 2 to withdraw that proposal in 1997, 62 Fed. Reg. 37852, and again in 2003, citing a changed
 3 interpretation of current and anticipated threats to extant lizard populations. 68 Fed. Reg.
 4 331, 335/1, 348/3 (January 3, 2003) (“2003 Finding”). The Tucson Herpetological Society,
 5 other environmental groups, and concerned individuals (“Plaintiffs”) turned back the
 6 withdrawal notices on the ground that the Secretary failed to consider whether the flat-tailed
 7 horned lizard was “in danger of extinction throughout . . . a significant portion of its range.”
 8 16 U.S.C. § 1532(6); *Defenders of Wildlife v. Norton*, 258 F.3d 1136, 1145-46 (9th Cir.
 9 2001) (vacating 1997 withdrawal); (doc. # 59 at 8-11) (vacating 2003 withdrawal for failure
 10 to comply with *Defenders*).

11 On remand, the Secretary reopened the comment period and conducted an analysis of
 12 both the size and the significance of “the lost historical habitat of the flat-tailed horned
 13 lizard.” 71 Fed. Reg. 367545, 36745/2 (June 28, 2006) (“2006 Finding”).² After further
 14 study, the Secretary once again resolved to withdraw the proposed listing. *Id.* (concluding
 15 that the lost habitat is “not a significant portion” of the lizard’s range and “does not result in
 16 the species likely becoming endangered in the foreseeable future throughout all or a
 17 significant portion of its range”). Plaintiffs oppose that conclusion. The narrow question
 18 presented by Plaintiffs’ Supplemental Complaint (doc. # 98) is whether the Secretary’s
 19 interpretation of the phrase, “in danger of extinction throughout . . . a significant portion of
 20 its range,” 16 U.S.C. § 1532(6), is consistent with the decision of the Court of Appeals for
 21 the Ninth Circuit in *Defenders*, and supported by the administrative record. 5 U.S.C. §
 22 706(2)(A). The court finds that it is for the reasons set forth below.

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27 ²The administrative record in this matter is composed of the record for the 2003
 28 Finding (doc. # 40) (hereinafter “AR”), and the supplemental record for the 2006 Finding
 (doc. # 112) (hereinafter “Supp. AR”).

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2 **I. Background**

3 **A. The Flat-Tailed Horned Lizard**

4 The flat-tailed horned lizard is a small iguanid with a long, flattened body, a broad
 5 flattened tail, and dagger-like head spines. 68 Fed. Reg. at 331/3. The lizard ranges in color
 6 from pale gray to light rust brown dorsally, and white or cream ventrally, and is distinguished
 7 by a dark vertebral stripe and two rows of fringed scales on either side of its body. *Id.* The
 8 lizard most commonly inhabits sandy flats and valleys with creosote and white bursage
 9 plants, which are generally found on alluvial fans and upland slopes with well-drained soils.
 10 71 Fed. Reg. at 36745/3; (Supp. AR doc. # 327 at 2991). Behaviorally, the FTHL differs
 11 from other iguanids in that it remains still or may bury itself in loose sand when approached.
 12 This reluctance to move when disturbed, together with cryptic coloration and flattening of
 13 the body, makes the lizard difficult to locate and study in its desert habitat. (Supp. AR doc.
 14 ## 329 at 3012 (citations omitted); 325 at 2894.)

15 **B. The Range of the Flat-Tailed Horned Lizard, Current and Historic**

16 The flat-tailed horned lizard “has the most limited distribution of any horned lizard
 17 species” in the United States, occurring “entirely within the Lower Colorado River Valley
 18 Subdivision of the Sonoran Desert Scrub, the largest and most arid subdivision of the
 19 Sonoran Desert.” (Supp. AR doc. # 329 at 3005, 3009.) The species’ historic range
 20 encompasses the extreme southwestern corner of Arizona, the southeastern corner of
 21 California, and adjoining portions of Sonora and Baja California, Mexico. (*Id.* at 2999.) The
 22 2003 Rangewide Management Strategy (“RMS”)³, published by the FTHL Interagency

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24 ³ The Rangewide Management Strategy provides a “framework for conserving
 25 sufficient habitat to maintain several viable populations of the [FTHL] throughout the range
 26 of the species in the United States.” 68 Fed. Reg. at 334/1 (identifying five Management
 27 Areas located on federal land in California and Arizona pursuant to the 1997 Conservation
 28 Agreement, discussed in *Defenders*, 258 F.3d at 1139-40). FTHL habitat located outside of
 the Management Areas receives “a degree of protection” through mitigation, compensation,
 and monitoring efforts. (Supp. AR. doc. # 329 at 3028.)

1 Coordinating Committee and incorporated by reference in the 2006 Finding, contains a
2 graphic representation of the lizard's historic range and its smaller and more fragmented
3 current range, both within the United States and south of the international border in Mexico.
4 71 Fed. Reg. at 36746/2; (Supp. AR doc. # 329 at 3008). The Secretary's analysis of the lost
5 historic range in the 2006 Finding builds upon his prior assessment of the distribution, and
6 threats to, the FTHL on its current range. 71 Fed. Reg. at 36745/2 (incorporating the 2003
7 current range analysis, which was previously upheld on judicial review, in the 2006 Finding).
8 The relevant portions of the 2003 and 2006 Findings are summarized below.

9 **1. The 2003 Finding: Analysis of the Current Range**

10 **i. Distribution of the Lizard Today**

11 In the 2003 Finding, the Secretary found that the "distribution of the flat-tailed horned
12 lizard is not contiguous across its range," but is rather fragmented by "large-scale agriculture
13 and urban development" and natural geographic barriers such as the Colorado River and the
14 Salton Sea. 68 Fed. Reg. at 332/1; (Supp. AR doc. ## 330 at 3114 (observing that the FTHL
15 occupies "a specific microhabitat that is now patchily distributed" throughout its historic
16 range in California, Arizona, and Mexico); 329 at 3008 (visual depiction of FTHL habitat
17 fragmentation)).

18 In the United States, surviving lizard populations are concentrated within four
19 "geographically discrete populations" on approximately 1,376,525 acres of historic habitat.
20 68 Fed. Reg. at 332/1-2. In California, the lizard is found in the Coachella Valley, the west
21 side of the Salton Sea and Imperial Valley (Borrego Valley, Ocotillo Wells area, West Mesa,
22 and the Yuha Desert), and the east side of the Imperial Valley (East Mesa, Algodones Dunes,
23 and the Dos Palmas Bureau of Land Management area). *Id.* at 331/3, 332/1. Arizona
24 populations of the FTHL are located in the Yuma Desert south of the Gila River and west of
25 the Gila and Butler Mountains. *Id.* at 332/1.

26 In Mexico, the lizard may be found south of California's Yuha Desert from the
27 international border to the Laguna Salada in Baja California, and south of Arizona's Yuma
28 Desert to the Pinacate Region and the sandy plains around Puerto Peñasco and Bahia de San

1 Jorge, Sonora. *Id.* at 332/1. The precise number of acres occupied by the lizard in Mexico
 2 is unknown. In fact, “the distribution of the species in Mexico is poorly understood because
 3 few surveys have been conducted” there. *Id.* at 332/2. Like those in the United States,
 4 however, Mexican lizard populations have been isolated to some degree by human-mediated
 5 processes, particularly agricultural and urban development. *Id.* at 332/2, 345/2-3.

6 **ii. Documented and Anticipated Threats**

7 After delineating the lizard’s current range, the Secretary evaluated the documented
 8 and anticipated threats to the species in light of the five listing factors prescribed by the
 9 ESA.⁴ The Secretary observed, “The increased use of the desert by Border Patrol, OHVs,
 10 and other development and the resulting effects on flat-tailed horned lizards has been difficult
 11 to monitor.” *Id.* at 339/3. “Intuitively,” the Secretary “know[s] these impacts cannot keep
 12 increasing without resulting in negative impacts to habitat.” *Id.* at 339/3. “However, based
 13 on the best available information,” the Secretary “determined that such possible negative
 14 impacts do not currently, or in the foreseeable future, pose a threat to the species.” *Id.* at
 15 339/3, 341-47 (applying the five statutory listing factors to lizard populations on public and
 16 private lands). The Secretary withdrew his proposal to list the flat-tailed horned lizard under
 17 the ESA upon concluding that “the threats to the species . . . are not as significant as earlier
 18 believed.” *Id.* at 348/3.

19 **iii. Current Range Analysis Upheld in Full**

20 On judicial review of the 2003 Finding, this court upheld the Secretary’s site-specific
 21 review of threats to existing lizard populations on the current range in full. (Doc. # 59 at 11-
 22 15 (accepting the Secretary’s “fact-based examination of the significance of the threats posed
 23 to part of the species’ range to the viability of the species as a whole,” which was based on
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25 ⁴ The five factors the Secretary must consider when determining a species’ eligibility
 26 for protection are: (A) the present or threatened destruction, modification, or curtailment of
 27 [the species’] range; (B); overutilization for commercial, recreational, scientific, or
 28 educational purposes; (C) disease or predation; (D) the inadequacy of existing regulatory
 mechanisms; (E) other natural or manmade factors affecting [the species’] continued
 existence. 16 U.S.C. § 1533(a)(1).

1 “the best scientific and commercial data available”.) The Secretary’s application of the five
 2 listing factors to extant lizard populations will be not be disturbed here.

3 **iv. Historic Range Analysis: The Fatal Flaw in the 2003 Finding**

4 Though his discussion of the threats to the lizard on its current, fragmented range
 5 passed muster, the Secretary violated the command of the Ninth Circuit by failing to identify
 6 and assess the significance of the historic habitat no longer available to the species. (Doc.
 7 # 59 at 9-11.) *Defenders* held, in essence, that the Secretary must define the ambiguous term,
 8 “a significant portion of its range,” apply that definition to the lost historic range, and explain
 9 his conclusions as to the significance of the forsaken habitat. 258 F.3d at 1145. The 2003
 10 Finding was deficient because, after noting that entire portions of the lizard’s historic range
 11 in the United States and Mexico had been lost, 68 Fed. Reg. at 332/2, the Secretary did not
 12 go on to evaluate the impact of that lost range upon the species, or make any findings as to
 13 the significance of that lost habitat whatsoever. He did not consider, for example, whether
 14 there were any attributes or specific uses of the lost habitat that made it significant to the
 15 survival of the species in any particular geographic area, or even whether the species could
 16 recover to the point where it can re-colonize some of its lost habitat. Instead, the Secretary
 17 conducted a “forward-looking analysis” that focused exclusively upon the impact of human
 18 activity upon the survival of the species as a whole on its current range. (Doc. # 59 at 9)

19 The Secretary necessarily has a “wide degree of discretion in delineating ‘a significant
 20 portion of its range,’ since the term is not defined in the statute.” *Defenders*, 258 F.3d at
 21 1145. However, the Secretary may not close his eyes to the possibility that the lost habitat
 22 constitutes a “significant portion” of the species’ total range. The Secretary may not assume,
 23 without more, that the viability of the species in some specified portion of its current range
 24 renders other geographically distinct portions of the historic range insignificant. The
 25 Secretary construed the phrase, “in danger of extinction throughout . . . a significant portion
 26 of its range,” 16 U.S.C. § 1532(6), to mean “that a species is eligible for protection under the
 27 ESA if it faces threats in enough key areas of its range that the *entire species* is in danger of
 28 extinction, or will be in the foreseeable future.” *Defenders*, 258 F.3d at 1141 (emphasis in

1 original). This interpretation was “unacceptable” because it could “not be squared with the
 2 statute’s language or structure.” *Id.* at 1141. To posit “that a species in danger of extinction
 3 in a ‘significant portion of its range’ only if it is in danger of extinction everywhere” is to
 4 render the phrase “superfluous.” *Id.* at 1141-42. The Secretary may not exercise his
 5 discretion under the Endangered Species Act to write the phrase, “a significant portion of its
 6 range” out of the statute entirely. 16 U.S.C. § 1532(6).

7 The Secretary’s failure to define the lizard’s range so as to include some lost habitat,
 8 and his failure to determine whether that lost habitat constituted a “significant portion of its
 9 range,” was fatal to the 2003 rulemaking. (Doc. # 59 at 10); *see Defenders*, 258 F.3d at
 10 1145, 1154 n.11 (deference not warranted because the court cannot “defer to what [it] cannot
 11 perceive”) (citation and internal quotations omitted). Other courts have relied on *Defenders*
 12 to vacate listing decisions on substantially the same grounds. *See Defenders of Wildlife v.*
 13 *Norton*, 239 F. Supp. 2d 9, 20, 20 n.7 (D.D.C. 2002) (Faulting the Secretary for adopting a
 14 “crabbed interpretation of the phrase ‘significant portion of its range,’ which would mean
 15 that a species that had once survived in a region, but no longer did, was not entitled to the
 16 protections of the ESA,” and vacating the rulemaking for failure to explain why the area in
 17 which the Canada Lynx can no longer live is not a significant portion of its range.);
 18 *Defenders of Wildlife v. Sec’y, U.S. Dep’t of the Interior*, 354 F. Supp. 2d 1156, 1167-69 (D.
 19 Or. 2005) (Vacating Gray Wolf rulemaking because the Secretary applied the ESA’s five
 20 listing factors to the species on its current range without considering or explaining the
 21 significance of the wolf’s lost historic range); *Nat’l Wildlife Fed’n v. Norton*, 386 F. Supp.
 22 2d 553, 564-566 (D. Vt. 2005) (vacating a different Gray Wolf listing decision on similar
 23 grounds).

24 This court’s narrow remand order instructed the Secretary to identify an appropriate
 25 “temporal baseline” for the FTHL, and to consider “whether the lizard’s lost historical habitat
 26 renders the species in danger of extinction in a significant portion of its range.” (Doc. ## 59
 27 at 10; 68 at 2.) The Secretary published the June 26, 2006 notice of withdrawal in response
 28 to this court’s Order. 71 Fed. Reg. at 36745. The 2006 Finding is fully consistent with

1 *Defenders*, as discussed in further detail below.

2 **2. The 2006 Finding: Historic Range Analysis**

3 In the 2006 Finding, the Secretary defined the lizard's range so as to include lost
4 habitat, estimated the extent of habitat loss, and then determined whether that lost habitat
5 constitutes a "significant portion" of the FTHL's historic range. The Secretary found that
6 approximately 1,103,201 acres of the lizard's estimated 4,875,624 acre historic range in the
7 United States and Mexico have been permanently lost human-mediated processes. *Id.* at
8 36749/3, 36751/1-2. The habitat loss began in the early 20th century, when agricultural and
9 urban development started to encroach upon the lizard's habitat in the southwestern United
10 States and northwestern Mexico. 71 Fed. Reg. at 36751/1.

11 At the heart of the 2006 Finding is the Secretary's conclusion that the forsaken
12 historical habitat is not biologically, geographically or otherwise significant to the flat-tailed
13 horned lizard. The Secretary found that the approximately 1,103,201 acres lost to
14 agriculture, urbanization and other human-mediated processes is not a significant portion of
15 the lizard's range because 1) the species has persisted despite without that portion of its
16 range; 2) the lost habitat has not caused, and does not threaten to cause, lizard populations
17 to decline throughout the species' current range in the foreseeable future; and 3) there were
18 no particular attributes of the lost habitat that made it any more significant than any other part
19 of the range. *Id.* These conclusions find ample, if not unanimous, support in the
20 administrative record, and are otherwise reasonable. The Tucson Herpetological Society and
21 its co-Plaintiffs believe otherwise, noting that there are major geographical areas in which
22 the lizard is no longer viable but once was, and faulting the Secretary for not ascribing to the
23 lost acreage the importance it deserves. The parties support their respective positions by
24 reference to *Defenders*, the controlling decision in this matter. It is to that decision that the
25 court now turns.

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1 **C. The *Defenders* Decision**

2 **1. The Statutory Puzzle**

3 Under the ESA, a species is “endangered” if “it is in danger of extinction throughout
 4 all or a significant portion of its range.” 16 U.S.C. § 1532(6).⁵ Thus, listing is required if a
 5 species is “in danger of extinction throughout all . . . of its range,” or if it is “in danger of
 6 extinction throughout . . . a significant portion of its range.” 16 U.S.C. § 1532(6). The
 7 parties agree that the FTHL is not in danger of extinction, or likely to become in danger of
 8 extinction in the foreseeable future, throughout *all* of its range. Instead, the parties dispute
 9 whether the species qualifies for ESA protection on the basis of threats to its survival on a
 10 “significant portion” of its range, the second of the two disjunctive listing criteria. Though
 11 it is central to the definition of both “endangered species” and “threatened species,” the Act
 12 provides little guidance as to what constitutes “a significant portion” of a species’ range. The
 13 1993 proposal to list the flat-tailed horned lizard, 58 Fed. Reg. 62624, and the subsequent
 14 withdrawal of that proposal in 1997, 62 Fed. Reg. 37852, presented the Court of Appeals for
 15 the Ninth Circuit with an opportunity to “puzzl[e] out the meaning of the phrase.”
 16 *Defenders*, 258 F.3d at 1141.

17 **2. The *Defenders* Analysis**

18 In *Defenders*, the Court of Appeals for the Ninth Circuit observed that the dictionary
 19 definition of the word “extinct,” meaning “has died out or come to an end . . . [h]aving no
 20 living representative,” is at odds with the more “flexible” definition of “extinct”
 21 contemplated by the ESA. 258 F.3d at 1141, 1146. The Act is drafted to prevent species
 22 from becoming “extinc[t] throughout . . . a significant portion of its range.” 16 U.S.C. §
 23 1532(6). This is “odd phraseology” because, at least in “ordinary usage,” a species has not
 24 “come to an end” when some individuals are persisting elsewhere. 258 F.3d at 1141. It is
 25 also “internally inconsistent,” observed the court, “to speak of a species that is ‘in danger

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 27 ⁵A “threatened species” is one that is “likely to become . . . endangered . . . within the
 28 foreseeable future throughout all or a significant portion of its range.” 16 U.S.C. § 1532(20).

1 of extinction' throughout a 'significant portion of its range[,] . . . since 'extinction' suggests
 2 total rather than partial disappearance." *Id.* After surveying the applicable legislative
 3 history, the court resolved the textual ambiguity by concluding that a species need not be
 4 threatened with "worldwide extinction" to qualify for protection under the Endangered
 5 Species Act. *Id.* at 1144.

6 Congress added the "significant portion of its range" language to 16 U.S.C. § 1532(6)
 7 to "allow the Secretary more flexibility in [his] approach to wildlife management," the court
 8 explained. *Id.* at 1144. To that end, the definition of "endangered species" allows the
 9 Secretary in his discretion to list a species that is threatened in a "significant portion" of its
 10 range even if the same species is thriving in other geographic areas. *Id.* at 1144-45. The
 11 Secretary need not formally divide the species into Distinct Population Segments ("DPSs")
 12 to accomplish a geographically tailored listing, since the authority is apparent on the face of
 13 the statute itself.⁶ Conversely, 16 U.S.C. § 1532(6) allows the Secretary to forego listing
 14 altogether where the species is experiencing healthy population levels on the "significant
 15 portions" of its range, but is in danger of extinction (or already extinct) in areas considered
 16 by the Secretary to be of no significance. In that case, the individual States, as opposed to
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19 ⁶ The FTHL currently exists in "geographically discrete populations" patchily
 20 distributed throughout its historic range in the United States and Mexico. 68 Fed. Reg. at
 21 332/1-2. Despite this habitat fragmentation, the FTHL has not been subdivided into distinct
 22 population segments under the FWS policy on the recognition of "discrete" and "significant"
 23 populations. *Id.* at 331, 336/3; 61 Fed. Reg. 4722, 4725 (DPS Policy). Therefore, the lizard
 24 could, but need not, be listed throughout all of its range if the Secretary were to conclude,
 25 contrary to the facts of this case, that the lizard is "endangered" or "threatened" throughout
 26 a "significant portion" of its range. See Edward A. Fitzgerald, *Dysfunctional Downlisting
 27 Defeated: Defenders of Wildlife v. Secretary, U.S. Department of the Interior*, 34 B.C. Envtl.
 28 Aff. L. Rev. 37, 65-78 (2007) (analyzing the origins of the DPS policy and FWS' application
 of that policy in the case of the gray wolf); see also *Nat'l Ass'n of Home Builders v. Norton*,
 340 F.3d 835, 848 (9th Cir. 2003) (reviewing DPS as applied to the cactus ferruginous
 pygmy-owl in Arizona, and distinguishing the word "significant" in the DPS policy from the
 word "significant" in the phrase, "a significant portion of its range," 16 U.S.C. § 1532(6)).

1 the federal government, would have full authority to use their management skills to insure
 2 the proper conservation of the species. *Id.* at 1144.

3 When making his listing decision, the Secretary must always consider whether the loss
 4 of some of the species' historic range qualifies the species for ESA protection. “[A] species
 5 may be extinct ‘throughout . . . a significant portion of its range’ if there are major
 6 geographical areas in which it is no longer viable but once was,” the court concluded. *Id.*
 7 at 1145 (citing rulemakings in which the Secretary expressly considered whether a species
 8 qualified for listing in major geographical areas that were separated from other portions of
 9 its historic range by political boundaries, natural geographical features, agricultural or urban
 10 development, or DPS classification). If the Secretary finds in his discretion that the lost
 11 habitat is of no significance, then he “must at least explain [his] conclusion that the area in
 12 which the species can no longer live is not a ‘significant portion of its range.’” *Id.* at 1145.
 13 Such explanation is particularly important “where, as here, it is on the record apparent that
 14 the area in which the lizard is expected to survive is much smaller than its historical range.”
 15 *Id.* at 1145.

16 The *Defenders* court found a middle ground between the Secretary's construction of
 17 16 U.S.C. § 1532(6), which viewed the statute as “saying the same thing twice,” and
 18 Defenders' rigid, quantitative interpretation of the phrase, “a significant portion of its range.”
 19 *Id.* at 1142-43. This “case by case” approach is faithful to the intent of Congress because it
 20 gives substantive meaning to each component of the defined terms, “endangered species,”
 21 and “threatened species,” and requires the Secretary to consider every factor that may
 22 militate in favor of listing a species, including the loss of “significant portions” of historic
 23 range. *Id.* at 1143. Because the loss of even a very small percentage of “significant” habitat
 24 triggers mandatory listing, the Secretary must explain his assessment of the lost historic
 25 range if his rulemaking is to survive judicial review.

26 II. Standard of Review

27 Section 706 of the Administrative Procedure Act (“APA”) governs this court's review
 28 of agency action under the EPA. *Nat'l Ass'n of Home Builders*, 340 F.3d at 840-41. Under

1 the APA, the reviewing court must set aside agency actions that are “arbitrary, capricious,
 2 an abuse of discretion, or otherwise not in accordance with law.” 5 U.S.C. § 706(2)(A). An
 3 agency action is “arbitrary and capricious” if it

4 relied on factors which Congress had not intended it to consider, entirely failed
 5 to consider an important aspect of the problem, offered an explanation for its
 6 decision that runs counter to the evidence before the agency, or is so
 implausible that it could not be ascribed to a difference in view or the product
 of agency expertise.

7 *O'Keeffe's v. U.S. Consumer Prod. Safety Comm'n*, 92 F.3d 940, 942 (9th Cir. 1996) (quoting
 8 *Motor Vehicle Mfrs. Ass'n v. State Farm Mut. Auto Ins. Co.*, 463 U.S. 29, 43 (1983)).

9 The arbitrary and capricious standard is a “narrow one,” *Citizens to Preserve Overton*
 10 *Park, Inc. v. Volpe*, 401 U.S. 402, 415-16 (1971), and judicial review, even in the summary
 11 judgment phase, is “highly deferential.” *Friends of the Earth v. Hintz*, 800 F.2d 822, 831
 12 (9th Cir. 1986). The agency must present a “rational connection between the facts found and
 13 the conclusions made,” and the “reviewing court may not substitute its judgment for that of
 14 the agency.” *Nat'l Wildlife Fed'n v. U.S. Army Corps of Eng'rs*, 384 F.3d 1163, 1170 (9th
 15 Cir. 2004); *O'Keeffe's*, 92 F.3d at 942 (citation omitted). Where “a statute is ambiguous, and
 16 if the implementing agency’s construction is reasonable, *Chevron* requires a federal court to
 17 accept the agency’s construction of the statute, even if the agency’s reading differs from what
 18 the court believes is the best statutory interpretation.” *Nat'l Cable & Telecomms. Ass'n v.*
 19 *Brand X Internet Servs*, 545 U.S. 967, 980 (2005) (citing *Chevron U.S.A., Inc., v. Natural*
 20 *Res. Def. Council*, 467 U.S. 837 (1984)). The “reviewing court should be at its most
 21 deferential in reviewing an agency’s scientific determinations in an area within the agency’s
 22 expertise.” *Natural Res. Def. Council v. EPA*, 863 F.2d 1420, 1430 (9th Cir. 1988) (quoting
 23 *Balt. Gas & Elec. Co. v. Natural Res. Def. Council*, 462 U.S. 87, 103 (1983)). The court
 24 “presum[es] the agency action to be valid and affirm[s] the agency action if a reasonable
 25 basis exists for its decision.” *Northwest Ecosystem Alliance v. Fish and Wildlife Serv.*, 475
 26 F.3d 1136, 1140 (9th Cir. 2007) (citation and internal quotations omitted).

27 If the agency fails to articulate a rational basis for its decision, it is appropriate for a
 28 court to remand for reasoned decision-making. *See Defenders*, 254 F.3d at 1145 n.11

1 (Secretary's interpretation of the ambiguous phrase "significant portion of its range" owed
 2 no deference under *Chevron* where agency failed to apply that term). A discretionary agency
 3 action may also be remanded for failure to adhere to the "required procedures of
 4 decisionmaking" set forth in the Endangered Species Act itself. *Bennett v. Spear*, 520 U.S.
 5 154, 172 (1997).

6 **III. Plaintiffs' Renewed Challenge**

7 **A. The Legal Framework**

8 Congress has delegated authority to the Secretary to parse the enigmatic phraseology
 9 at the center of this lawsuit, "in danger of extinction throughout . . . a significant portion of
 10 its range." 16 U.S.C. § 1532(6). Under *Chevron*, the court must defer to the Secretary's
 11 construction if he fills the statutory gap in reasonable fashion. 467 U.S. at 865-866. The
 12 Secretary's authority is cabined by the *Defenders* decision, however. In *Defenders*, the Ninth
 13 Circuit held that "a significant portion of its range" has a substantive, historical dimension
 14 that the Secretary may not ignore if his rulemaking is to survive judicial review. The
 15 Secretary must study the lost historical habitat and determine whether any portion of that lost
 16 range constitutes a "significant portion" of the species' range. *Defenders*, 258 F.3d at 1145.
 17 If he finds in his discretion that the lost habitat is of little or no significance, then the
 18 Secretary must "at least explain [his] conclusion that the area in which the species can no
 19 longer live is not a significant portion of its range." *Id.* (internal quotations omitted). An
 20 explanation is required because a species can, but need not, be extinct "throughout . . . a
 21 significant portion of its range" "if there are major geographical areas in which it is no longer
 22 viable but once was." *Id.*

23 **B. The 2006 Finding**

24 The 2006 Finding complies with the ESA, the *Defenders* decision, and this court's
 25 remand Order. The Secretary filled the statutory gap in 16 U.S.C. § 1532(6) by construing
 26 the phrase, "a significant portion of its range" so as to encompass biological significance as
 27 well as geographical significance. (Doc. # 114 at 23.) He then cured the deficiency in the
 28 2003 Finding by delineating the lizard's lost historical habitat and evaluating the habitat lost

1 since the early 20th century using the criteria identified by him. The rulemaking is analyzed
 2 in greater detail below.

3 **1. Setting the Temporal Baseline and Delimiting Lost Habitat**

4 First, the Secretary chose a point in time at which to examine the lizard's range. He
 5 resolved to study habitat loss occurring over the past 100 years, a time frame that constitutes
 6 "the available recorded historical information" in this area.⁷ 71 Fed. Reg. at 36749/3. Over
 7 the past century, "[a]pproximately 1,103,201 [acres of historic habitat] have been lost, nearly
 8 entirely within . . . the Coachella Valley, and Mexicali and Yuma areas," the Secretary
 9 concluded. *Id.* at 36751/1. In the Mexicali area, agricultural development caused habitat loss
 10 extending from Mexicali south to the Gulf of California and east to the Colorado River.
 11 "This block of lost habitat is contiguous . . . with the block of lost habitat in the Yuma area,"
 12 the Secretary explained. *Id.* at 36751/1. "The block of habitat that encompasses northeastern
 13 Baja California Note and southwestern Arizona is the largest block of lost habitat," he
 14 averred. *Id.* at 36751/1.

15 **2. The Lost Habitat Is Insignificant**

16 After setting a temporal baseline and defining the subject area, the Secretary
 17 proceeded to evaluate the significance of the lost historical habitat. He concluded that the
 18 Coachella Valley area, including its lost associated habitat, was insignificant because of its
 19 small size relative to the overall range of the species, the high level of fragmentation due to
 20 human development, the lack of genetic, behavioral, or ecological differentiation, and the
 21 small size and importance of the population in general. *Id.* at 36751/1; 68 Fed. Reg. at 348/1-
 22 2 (same in 2003 Finding). The remaining parcels of lost historical habitat areas near
 23 Mexicali and Yuma were also deemed insignificant. "These habitat areas were likely
 24 converted to agriculture early in the 20th century," and are not a significant portion of the
 25 lizard's historic range because of their "small size relative to the entire range and because this

26
 27 ⁷ The Secretary consulted his own "knowledge of habitat preference for the species,
 early descriptions of habitat before development, and early museum records" to construct his
 28 "estimation of the broad-scale historical range." 71 Fed. Reg. at 36747/1.

area has been lost to agriculture for nearly a century and the flat-tailed horned lizard has persisted” in surrounding habitats, such as East and West Mesa, and the Yuha Basin, for generations. 71 Fed. Reg. at 36751/1. The “lost habitat was not significant enough to lead to the species’ extirpation within intact habitat through edge effects or fragmentation,” the Secretary observed. *Id.* at 36751/2.

6 Not only has the species persisted for nearly a century in the face of the steady habitat
7 destruction, but the size of existing lizard populations has not declined and is not likely to
8 decline in the foreseeable future because of the loss of 1,103,201 acres of historic range, the
9 Secretary found. *Id.* at 36751/2-3. After surveying the “available data concerning population
10 abundance, trends, and threats,” the Secretary concluded that yesterday’s conversion of
11 suitable habitat to agriculture in the Mexicali and Yuma areas is not significant to the
12 survival of today’s lizards.⁸ *Id.* at 36751/3. This is the historical analysis that *Defenders* and
13 this court demanded.

Finally, the Secretary broadened his inquiry to consider whether “[t]here were [any] attributes or specific uses of the lost habitat by flat-tailed horned lizards that made it any more significant than any other habitat.” *Id.* at 36751/2. He determined that “there was nothing of the sort.” *Id.* at 36751/2. For example, although the lost habitat in and around Mexicali and Yuma “is situated between the Arizona-Sonora and California-Baja California Norte populations,” the significance of the lost habitat as a biological corridor is minimal because “the Colorado River already isolated these populations to some degree,” and “[m]uch of this habitat has been permanently lost due to urbanization and/or flooding of the Salton Sea.” *Id.* at 36751/2. Even where the desert floor has not been paved over, recolonization is all but impossible because “most agricultural fields are isolated from

⁸The 2003 Rangewide Management Strategy suggests that “human activities have resulted in the conversion of roughly 49% of the historic FTHL habitat to other uses, such as agriculture and urban development.” (Supp. AR doc. # 329 at 2999); 68 Fed. Reg. at 348/1 (similarly concluding that “[m]uch of the species’ habitat has been lost, fragmented, or degraded”).

existing flat-tailed horned lizard populations by irrigation canals.” *Id.* at 36751/2. Therefore, the Secretary does “not anticipate [that] any significant amount of previously lost habitat could become viable habitat in the future.” *Id.* at 36751/2. It is for this reason that the lost habitat is not a significant portion of the lizard’s historic range, despite its location at the nexus of once connected but now permanently isolated habitat areas.⁹

C. Plaintiffs' Arguments for Remand

7 Plaintiffs specifically urge the court to vacate the 2006 Finding because of its reliance
8 (both explicit and implicit) on the lizard's persistence in its current range, its refusal to
9 consider new threats to extant lizard populations, and its modification of the lizard's historic
10 range in California and in Mexico. (Doc. ## 98; 110.) These contentions are without merit.
11 Each of Plaintiffs' arguments will be addressed in turn below.

1. Lizard Persistence is a Valid Criterion

13 Plaintiffs’ first challenge to the 2006 Finding misses the mark entirely. *Defenders*
14 prohibits the Secretary from de-listing the lizard solely because it is persisting as a whole in
15 its current range, but it does not preclude the Secretary from taking the lizard’s persistence
16 into account when evaluating the significance of the lost habitat. Lizard persistence cannot
17 be the only criterion of significance, but it can support a listing decision if otherwise
18 supported and explained. Indeed, the Ninth Circuit encouraged the Secretary to consider the
19 “viability of the species as a whole,” when assessing the significance of lost habitat so as to
20 “allow listing of species where areas of range vital to the species’ survival—but not the
21 majority of the range—face significant threats.” *Defenders*, 258 F.3d at 1143, 1143 n.9.

In this case, the Secretary assessed the quantum of historical range now lost to species and drew an inference about the significance of the lost habitat from the fact that the lizard has survived for almost a century in spite of that habitat destruction. 71 Fed. Reg. at 36748/1. “This continued persistence over a span of nearly 100 years [and more than 25

⁹As an aside, the Secretary observed that “additional conversion of flat-tailed horned lizard habitat to agriculture” in the Imperial Valley and elsewhere along the Colorado River is not likely because of the limited “availability of water for irrigation.” *Id.* at 36751/2.

1 generations] is a strong indication that the species will continue to persist into the foreseeable
 2 future despite the loss of historical habitat,” the Secretary concluded. *Id.* at 36751/1. This
 3 inference marked the beginning, not the end, of the Secretary’s analysis. Lizard persistence
 4 was but “one portion of a broader assessment” that “ultimately led the Service to the
 5 conclusion that the lost historical habitat was not significant.” (Doc. # 114 at 14-16.)

6 **2. Beyond Lizard Persistence**

7 Plaintiffs contend that the “broader assessment” testified to by the Secretary is
 8 unworthy of credence because it simply repackages the lizard persistence argument in
 9 different terms. Even if *Defenders* did prohibit the Secretary from taking the lizard’s
 10 persistence into account when evaluating the significance of the lost historical range, which
 11 it does not, this argument is foreclosed by the text of the 2006 Finding itself. After his
 12 discussion of lizard persistence, the Secretary went on to assess the significance of the lost
 13 historical habitat in terms of its size relative to the species’ overall range (it is “relatively
 14 small”), its capacity for re-colonization (the habitat is “permanently lost”), its contribution
 15 to gene flow (the habitat was not a likely biological corridor even before its destruction), and
 16 its impact upon the size of extant lizard populations (the lizard has not been extirpated
 17 “within intact habitat through edge effects or fragmentation,” and lizard populations today
 18 have not significantly declined because of the habitat loss). 71 Fed. Reg. at 36751/2-3. The
 19 Secretary’s qualitative and quantitative assessment of the significance of the lost habitat went
 20 well beyond lizard persistence. Thus, the rulemaking may stand because, consistent with the
 21 essential holding of *Defenders*, the Secretary has explained why in his expert judgment “the
 22 area in which the species can no longer live is not a ‘significant portion of its range.’” 258
 23 F.3d at 1145. Plaintiffs have failed to generate a triable issue as to whether that conclusion
 24 was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”
 25 5 U.S.C. § 706(2)(A). The Secretary’s analysis is fully consistent with *Defenders* and
 26 Congress’ intent when enacting the ESA: to “provide a means whereby the ecosystems upon
 27 which endangered species and threatened species depend may be conserved.” 16 U.S.C. §
 28 1531(b).

1 The Secretary's discussion of the lizard's ability to survive habitat destruction and
2 degradation is not the fatal flaw Plaintiffs make it out to be. In fact, it is difficult to imagine
3 how the Secretary could have complied with *Defenders* without evaluating lizard population
4 levels in the current range, which is smaller and more fragmented than the historic range.
5 For if the Secretary had found that the loss of historic range *was* significant in the sense that
6 the species is somehow threatened by its absence on its current range, then listing would be
7 required as he candidly admits. (Doc. # 114 at 16.) The "best scientific and commercial data
8 available" led the Secretary to this conclusion, however. 16 U.S.C. § 1533(b)(1)(A); 71 Fed.
9 Reg. at 36751/2 ("There were no attributes or specific uses of the lost habitat . . . that made
10 it any more significant than any other habitat."). Instead, the Secretary concluded that listing
11 is not required because the species has adapted to the irrevocable curtailment of its historic
12 range and is surviving in its modern-day milieu (the 2006 Finding), and the species is not
13 likely to suffer significant habitat or population decline on its current range in the foreseeable
14 future (the 2003 Finding). Most importantly, the Secretary explained *why* the area in which
15 the lizard can no longer live is not significant to the species, whether in terms of lizard
16 biology, desert geography, or for any other reason. This is all that the ESA and the
17 *Defenders* decision requires from the agency entrusted with the listing decision.

18 Plaintiffs seek to undermine the Secretary's conclusion by pointing to scientific
19 evidence tending to show that the lost habitat is "a significant portion of [the lizard's] range."
20 (*See* doc. # 110 at 16-17 (discussing harmful genetic and geographic isolation of extant lizard
21 populations); Supp. AR doc. ## 232 at 1958 ("the loss of habitat . . . caused by human
22 mediated processes is significant to the species" from a genetic perspective); 329 at 3012-13
23 (flat-tailed horned lizards have "unusually large home ranges for lizards their size," and
24 studies suggest that the FTHL "may not maintain distinct home ranges, but instead shift their
25 area of use through time")). Plaintiffs infer from these studies that the flat-tailed horned
26 lizard, like the grizzly bear, will be unable to survive in the "detached islands of population"
27 to which it has been relegated. Aldo Leopold, *A Sand County Almanac* 198 (Oxford Univ.
28 Press 1989) (1949). Their apprehension is not unfounded. But the scientific evidence is far

1 from conclusive, and the court is not empowered by the APA to “substitute its judgment for
 2 that of the agency.” *Overton Park*, 401 U.S. at 416. Just as the documented threats to the
 3 lizard on its current range did not compel the Secretary to list the species in the 2003 Finding,
 4 so too is the Secretary privileged to form his own expert judgment about the significance of
 5 the lost habitat in 2006 Finding, provided his conclusions are reasonable and have been
 6 explained. Here, the Secretary assessed the available scientific evidence (including the
 7 evidence of diminished gene flow) and concluded, reasonably and with ample record support,
 8 that the lost habitat is *not* a “significant portion” of the lizard’s range. The Secretary need
 9 not list the lizard solely because there are major geographical areas in which it is no longer
 10 viable but once was, *Defenders*, 258 F.3d at 1145, but he must explain why the historic
 11 acreage is not a “significant portion” of the lizard’s fragmented range. 68 Fed. Reg. at 332/1
 12 (“The distribution of the [FTHL] is not contiguous across its range, because of fragmentation
 13 by large-scale agricultural and urban development.”). The 2003 Finding failed the *Defenders*
 14 test because it simply ignored the substantive, historical dimension of the phrase, “a
 15 significant portion of its range,” and assumed without explanation that large swaths of lost
 16 habitat were of no significance at all. The 2006 Finding suffers from no such defect.

17 **3. Record Support For Lizard Persistence**

18 Plaintiffs next mount a two-prong attack upon the evidentiary sufficiency of the
 19 Secretary’s conclusions regarding lizard persistence in its current range. One prong of the
 20 attack may be readily disposed of by reference to the court’s remand Order. The second
 21 prong, which is premised upon scientific uncertainty about the population dynamics of the
 22 FTHL, misapprehends the nature of judicial review and is also without merit.

23 **i. Failure to Evaluate New Data**

24 Conceding for the sake of argument that lizard persistence is a valid criterion under
 25 the *Defenders* standard, Plaintiffs impugn the record support for the Secretary’s conclusions.
 26 Plaintiffs specifically fault the Secretary for failing to “evaluate new threats, re-evaluate
 27 expanding threats, and analyze new information to assess the lizard’s ability to persist in its
 28 current range.” (Doc. # 115 at 6.) However, as discussed above, this court previously upheld

1 the Secretary's application of the five listing criteria to extant lizard populations both within
 2 and outside of the five management areas. (Doc. # 59 at 11-15.) The Secretary erred in the
 3 2003 Finding not in his assessment of threats to the species on its curtailed range, but "by
 4 failing to evaluate the lost historical habitat and whether that lost habitat was a significant
 5 portion of the range." (Doc. # 68 at 1.) The court authorized Plaintiffs to challenge the
 6 Secretary's rulemaking by way of supplemental complaint, but only "on grounds not rejected
 7 in the court's previous orders." (Doc. # 90 at 12.) Plaintiffs' attempt to revive their
 8 challenge to the Secretary's threat assessment is contrary to court order and merits no further
 9 discussion.

10 Though the court did not require it, the Secretary responded in the 2006 Finding to
 11 comments relating to the construction of the Yuma Area Service Highway, the All-American
 12 Canal, alternative energy proposals, increased border patrol activity, and rising incidence of
 13 OHVs, among other issues. 71 Fed. Reg. at 36748-49. This portion of the 2006 Finding
 14 supplements the Secretary's original discussion of potential threats to lizard persistence with
 15 updated data and reference to the 2003 Rangewide Management Strategy, but it does not
 16 change the substance of his analysis. The "[c]ommentators did not provide new information
 17 or data . . . on additional threats not already considered in the January 3, 2003, withdrawal,"
 18 the Secretary observed. *Id.* at 36748/2. Having revisited the question, the Secretary remains
 19 persuaded that these factors do not pose a significant threat to the lizard in the foreseeable
 20 future. The court must defer to the Secretary's reasoned judgment. *Northwest Ecosystem*
 21 *Alliance*, 475 F.3d at 1140 (citation and internal quotations omitted). The contradictory
 22 portions of the administrative record identified by Plaintiffs, such as a dissenting email from
 23 a FWS biologist (Supp. AR doc. # 103), highlight ongoing differences in opinion but do not
 24 undermine the legal sufficiency of the Secretary's conclusion, which finds ample support in
 25 both the 2003 and the 2006 Findings.

26 **ii. Uncertain Population Dynamics**

27 Plaintiffs seize upon the scientific uncertainty surrounding the population dynamics
 28 of the FTHL in an effort to undermine the Secretary's conclusions regarding the viability of

1 the lizard in the near and long term. (Doc. # 115 at 5.) This argument misapprehends the
 2 nature of judicial review of agency action under the Endangered Species Act. The ESA
 3 mandates that the listing decision be made “solely on the basis of the best available scientific
 4 and commercial data available.” 16 U.S.C. § 1533(b)(1)(A). This “best available science”
 5 standard requires “far less than conclusive evidence” or “absolute scientific certainty.”
 6 *Defenders of Wildlife v. Babbitt*, 958 F. Supp. 670, 680 (D.D.C. 1997). Rather, the standard
 7 requires the agency to consider the scientific information presently available. *Id.* Deference
 8 to an agency’s scientific and technical expertise dictates that agency action must be upheld
 9 as long as the agency has “considered the relevant factors and articulated a rational
 10 connection between the facts found and the choice made.” *Baltimore Gas & Elec.*, 462 U.S.
 11 at 105.

12 In this case, a flat-tailed horned lizard Population Viability Analysis (“PVA”) was
 13 conducted in 1998. The results of the study were inconclusive. The PVA “provided no
 14 estimate of the minimum viable population size and did not determine whether populations
 15 contained in the [management areas] were viable.” 68 Fed. Reg. at 334/3. In fact, the
 16 conservation team noted that the “greatest value of this exercise is to illuminate the paucity
 17 of population data for this species.” (Supp. AR doc. # 28 at 577.) Though the scientists
 18 expressed “[u]ncertainty in the interpretation of the PVA results,” the study nevertheless
 19 provided “some insight into the mechanisms of FTHL population dynamics.” (*Id.*; Supp. AR
 20 doc. # 329 at 3013.) For example, the PVA “illustrated the sensitivity of flat-tailed horned
 21 lizards population viability to certain factors, particularly changes in mortality and
 22 fecundity.” 68 Fed. Reg. at 334/3. On the basis of these preliminary insights, the authors of
 23 the Rangewide Management Strategy opined that each of the management areas contains
 24 viable FTHL Populations. (Supp. AR doc. # 329 at 3013.)

25 In the 2006 Finding, the Secretary evaluated the inconclusive results of the PVA in
 26 light of “recent estimates of [FTHL] population sizes” conducted both within and outside of
 27 the five management areas. 71 Fed. Reg. at 36751/2-3. He concluded on the basis of these
 28 estimates that “the species remains viable throughout most of its current extant range” in

1 California, Arizona, and Mexico. *Id.* at 36751/3. The Secretary explained his finding as
 2 follows,

3 [T]he available data concerning population abundance, trends, and threats do not
 4 suggest, outside the Coachella Valley, that flat-tailed horned lizard populations are
 5 declining in any of the geographic areas, or that because of [] habitat loss and
 6 degradation the species is likely to become endangered within the foreseeable future
 Recent estimates of population sizes . . . [show] no large decline in population
 size occurred between 2003 and 2005 in areas for which we have more than one year
 of data.

7 71 Fed. Reg. at 36751/2-3.

8 Plaintiffs do not suggest that more conclusive scientific data on FTHL population
 9 dynamics are presently available. Rather, they direct the court's attention to the dissenting
 10 opinions of peer reviewers, 68 Fed. Reg. at 340-41, and lizard experts such as Dr. Wendy
 11 Hodges, a Plaintiff in this action, who believes that "the loss of habitat . . . caused by human
 12 mediated processes is significant to the species" from a genetic perspective. (Supp. AR doc.
 13 # 232 at 1958.) That some experts have concluded that the lizard is *not* viable in its current
 14 range because of the habitat loss does not preclude the Secretary from finding that lizard *is*
 15 viable, provided he presents a "rational connection between the facts found and the
 16 conclusions made." *Nat'l Wildlife Fed'n*, 384 F.3d at 1170; *Marsh v. Oregon Natural*
 17 *Resources Council*, 490 U.S. 360, 378 (U.S. 1989) ("When specialists express conflicting
 18 views, an agency must have discretion to rely on the reasonable opinions of its own qualified
 19 experts even if, as an original matter, a court might find contrary views more persuasive.").
 20 The ESA does not require conclusive evidence of minimum viable population size.
 21 Unanimous scientific consensus is not a prerequisite to lawful rulemaking. Though some
 22 may disagree with his conclusions, the Secretary's assessment of inconclusive data relating
 23 to the lizard's viability on its current range is supported by the "best available science" and
 24 has been adequately explained on this record.

25 **4. Exclusion of California Habitat and Inclusion of Mexican Habitat**

26 Finally, Plaintiffs challenge the Secretary's decision to modify the species' historic
 27 range by excluding approximately 1,309,409 acres in the vicinity of California's Salton Sea,
 28 and adding two blocks of uncertain acreage in Mexico. 71 Fed. Reg. at 36745/3; 36749/3-

1 36750/1. Plaintiffs charge the Secretary with “arbitrarily” changing “direction in the midst
 2 of the administrative process,” decreasing “the percentage of lost historical habitat,” and
 3 “creating the appearance that lost habitat is insignificant” thereby. (Doc. # 115 at 8.) The
 4 2006 Finding marks the first time that the Secretary has defined the species’ historic range
 5 in this particular manner. But a change of direction is not fatal to a rulemaking where, as
 6 here, the modifications are reasonable and have been explained.

7 The Secretary has discretion to delimit the historic range of the FTHL in accordance
 8 with his expert judgment and the “best available science” standard. *Defenders*, 258 F.3d at
 9 1145. The court must determine whether the Secretary’s delineation is “based on a
 10 consideration of the relevant factors and whether there has been a clear error of judgment.”
 11 *Overton Park*, 401 U.S. at 416. Where the agency reverses course, it “will be required to
 12 show not only that its new policy is reasonable, but also to provide a reasonable rationale
 13 supporting its departure from prior practice.” *Seldovia Native Ass’n v. Lujan*, 904 F.2d 1335,
 14 1345 (9th Cir. 1990) (citing *Motor Vehicle Mfrs.*, 463 U.S. at 29). “[I]f the agency
 15 adequately explains the reasons for a reversal of policy, change is not invalidating, since the
 16 whole point of *Chevron* is to leave the discretion provided by ambiguities of a statute with
 17 the implementing agency.” *Nat'l Cable & Telecomms. Ass'n*, 545 U.S. at 980 (citation and
 18 internal quotations omitted). “Unexplained inconsistency is . . . reason for holding an
 19 interpretation to be an arbitrary and capricious change from agency practice under the
 20 Administrative Procedure Act,” but a reasoned departure from prior practice in response to
 21 evolving scientific consensus or changed factual circumstances is not. *Id.* (“An initial agency
 22 determination is not instantly carved in stone. On the contrary, the agency . . . must consider
 23 varying interpretations and the wisdom of its policy on a continuing basis.”) (citations and
 24 internal quotations omitted). Therefore, neither the ESA nor the APA prohibits the Secretary
 25 from “changing direction in the midst of the administrative process,” as Plaintiffs mistakenly
 26 contend. It would be strange indeed to fault the Secretary for refining his estimation of the
 27 lizard’s historic range when this is precisely what the court required of him on remand.
 28

i. The Exclusion of the Salton Basin

a. Not Historical Habitat

The Secretary has determined that 1,309,409 acres of previously included habitat within and surrounding the Salton Sea (the “Salton Basin”) was not historical habitat at all. 71 Fed. Reg. at 36749/3-50/1. The available historical information indicates that the Salton Basin has been flooded by water from the Colorado River on at least 15 occasions since 700 AD. *Id.* at 36745/3-46/1; 36750/1. The water overflowed into the Salton Basin area to form historic Lake Cahuilla. *Id.* at 36750/1. “Flat-tailed horned lizards were likely killed during floods as water rushed into the basin and recolonization occurred as the water evaporated.” *Id.* at 36750/1. The Secretary goes on to observe, “Even when the lake was dry, a large portion of the dry lakebed was likely unsuitable habitat for flat-tailed horned lizards.” *Id.* at 36750/1. “Much of the area within the former Lake Cahuilla lakebed was not only intermittent, but low-quality habitat for the . . . lizard, particularly the central salt deposits and saltier, less sandy portions of the *Atriplex* community.” *Id.* at 36750/3. The Secretary excluded the Salton Basin acreage because it provided only intermittent, low-quality habitat for the species. *Id.* at 36750/1. The change of course, which was foreshadowed to some extent by the Secretary’s discussion in the 2003 Finding about the “ephemeral” nature of this habitat, is reasonable and has been adequately explained. 68 Fed. Reg. at 332/2.

b. The Habitat Was Not Significant

Even if the Salton Basin were considered historical habitat, the Secretary avers that the region would still be excluded from the lizard's range because of its limited ability to support viable FTHL populations. Scientists have found it difficult to study historic Lake Cahuilla. They have struggled to define, for example, "the precise proportion of the lakebed that historically was habitat, and the quality of that habitat," due to unknowns such as the precise proportions of specific plant communities in the Salton Basin and the patterns of windblown sand deposition. 71 Fed. Reg. at 36750/3. "Despite the difficulty in accurately determining historic conditions in the dry lakebed," the Secretary found "that it contained only a limited amount of suitable habitat, most of which is likely to have been marginal at

best. “*Id.* What is more, the Secretary observed that “recent work on the genetics of the flat-tailed horned lizard suggests that gene flow across the lakebed between the east and west sides of the Salton [Basin] was low even before the current fragmentation due to development and agriculture.” *Id.* The lack of “substantial gene flow across the Imperial Valley since the drying of Lake Cahuilla . . . and prior to human development” tends to support the Secretary’s conclusions about the significance of this area. *Id.* “Thus,” the Secretary reasonably concluded, “even if the lakebed were considered historical habitat, it would not be significant to the species.” *Id.* The Secretary’s decision to include low-quality habitat of a different character in areas such as the Yuha Basin, Ocotillo Wells, or Borrego Badlands, does not preclude him from excluding the marginal acreage at issue here. (Doc. # 115 at 12-13.) Congress vested the Secretary with authority to make such scientific judgments. The Secretary’s conclusions will not be disturbed if, after searching inquiry, the court finds the policy reversal to be reasonable and adequately explained. Having reviewed all portions of the original and supplemental record identified by Plaintiffs, the court finds that the Secretary’s exclusion of the Salton Basin as providing only “intermittent, low-quality [lizard] habitat” was not arbitrary or capricious or otherwise in violation of the ESA or the APA. 71 Fed. Reg. at 36750/1.

18 **ii. Addition of Mexican Habitat**

19 In the 2003 Finding, the Secretary described the lizard’s Mexican habitat as extending
20 “from the international border in the Yuha Desert in California, south to the Laguna Salada
21 in Baja California, and from the international border in the Yuma Desert in Arizona, south
22 and east through the Pinacate Region to the sandy plains around Puerto Peñasco and Bahia
23 de San Jorge.” 68 Fed. Reg. at 332/1. The 2006 Finding contains a substantially identical
24 description of the Mexican habitat, except that the Secretary changed his description of the
25 range south of the Yuha Desert by extending the species’ habitat “along the west side of
26 Laguna Salada” in Baja California. 71 Fed. Reg. at 36745/3. The precise number of acres
27 appended to the species’ Mexican range is not disclosed on the face of the 2006 Finding.
28

Rather than explaining the change in policy directly, as he did with the Salton Basin, the Secretary justified the change to the Mexican habitat by way of a citation to the Rangewide Management Strategy. *Id.* at 36746/2, 36749/3. The Secretary relied upon the 2003 RMS because it “contain[s] updated information on the current and historical range of the species in the United States and Mexico . . . in geographical information system (GIS) format,” and represents the “most recent analysis of the species’ range in the United States and Mexico.” *Id.* at 36746/1-2; (*see* Supp. AR doc. # 329 at 3008 (depicting the lizard’s current and historical Mexican range); 3006 (describing the Mexican range)). An early draft of the 2006 Finding explains that “approximately 50 miles” of new acreage “south of the northern lobe of Laguna Salada,” along with “approximately 10 - 20 miles” of new range “south and east along the coast of the Gulf of California past Puerto Peñasco,” were added to the lizard’s range because of a sighting of the species in each area, and because of the presence of suitable habitat.¹⁰ (Supp. AR doc. # 126 at 1141.) This language does not appear in the final version of the 2006 Finding, however.

While the Secretary explained his reliance upon the 2003 Rangewide Management Strategy to support his delineation of the species’ Mexican range in general, 71 Fed. Reg. at 36749/3, he did not explain why, or by how much, he extended the Laguna Salada range in the 2006 Finding, and he did not disclose the addition of new habitat along the Gulf of

¹⁰Plaintiffs oppose this conclusion by observing that the “leading Mexican study” from 2002 “concludes there is a [probable] absence of lizard in the Gran Desierto,” and also “reject[s]” the idea that the lizard’s distribution extends south of the Laguna Salada. (Doc. # 115 at 9) (citing Supp. AR doc. # 297 at 2603.). However, the conflicting assessment offered by the Mexican study is of little moment where, as here, the Secretary has adequately explained his decision to credit the “updated information” contained in the 2003 Rangewide Management Strategy instead. A consistent theme in the Secretary’s rulemakings is that “the distribution of the species in Mexico is poorly understood because few surveys have been conducted” there. 68 Fed. Reg. at 332/2. That the scientific community’s understanding of the lizard’s historic and current range in Mexico “could benefit from further surveys and/or modeling,” does not preclude the Secretary from drawing reasonable inferences from the best available data, in this case the 2003 Rangewide Management Survey. (Supp. AR doc. # 329 at 3007.)

1 California at all. Instead, the court was required to comb through the administrative record,
 2 including prior versions of the 2006 Finding and email correspondence between FWS
 3 biologists, to understand the extent of the new acreage and the specific reasons for its
 4 inclusion. (Doc. ## 110 at 18-20; 115 at 9-10.) The court cannot “be compelled to guess at
 5 the theory underlying the agency’s action; nor can a court be expected to chisel that which
 6 must be precise from what the agency has left vague and indecisive.” *SEC v. Chenergy Corp.*,
 7 332 U.S. 194, 196-97 (1947). The Secretary’s failure to explain the changes to the Mexican
 8 habitat on the face of the 2006 Finding prevents the court from upholding that portion of his
 9 rulemaking. The court “cannot supply a reasoned basis to make up for deficiencies in the
 10 agency’s decision,” nor can it “defer to the FWS when its path of reasoning is not clear.”
 11 *Nat’l Ass’n of Home Builders*, 340 F.3d at 849.

12 However, the Secretary’s failure to explain the addition of new Mexican habitat is not
 13 material to the 2006 Finding because the Secretary’s overall assessment of the size of the
 14 Mexican range relative to that north of the international border did not change when the new
 15 territory was included. In the 2003 Finding, which does not include the new acreage in the
 16 vicinity of the Laguna Salada and the Gulf of California, the Secretary found that
 17 “approximately 59 percent of the species[’] range occur[s] in Mexico. 68 Fed. Reg. at 332/2.
 18 The 2007 Finding, which includes that range by reference to the 2003 RMS, contains the
 19 same assessment. 71 Fed. Reg. at 36746/1. The expansion of the Mexican range in the 2007
 20 Finding was not substantial enough to cause the Secretary to alter his estimation of the
 21 relative size of the Mexican habitat.¹¹ What is more, the challenged acreage south of the
 22

23 ¹¹Plaintiffs observe (apparently for the first time) that the Secretary in two prior
 24 rulemakings contradictorily averred, “About 29 percent of the lizard’s historic range is in
 25 Mexico.” 58 Fed. Reg. at 62624 (1993 proposed rule); 62 Fed. Reg. at 37853/1 (same in
 26 1997 withdrawal with citation to Johnson and Spicer (1985)). The inconsistency between
 27 this figure and the 59 percent figure referenced in the 2003 and 2006 withdrawal notices is
 28 explained on the record, though not in the rulemakings themselves. FWS biologist Jim
 Rorabaugh explained that the 29 percent figure can be attributed to out-dated reports and
 speculation, while the 59 percent figure is more solidly grounded on empirical analysis and
 the Rangewide Management Survey. (Supp. AR doc. # 125 at 1133.)

1 international border played no discernible role in the Secretary's assessment of the
2 significance of the Mexican range or of the lost historical range as a whole. *Id.* at 36750-51.
3 Therefore, the unexplained inclusion of the new Laguna Salada and Gulf of California
4 territory, though to be disregarded, does not warrant remand.

5 IT IS THEREFORE ORDERED that Plaintiffs' Motion for Summary Judgment (doc.
6 # 109) is denied and Defendants' Cross-Motion for Summary Judgment (doc. # 113) is
7 granted.

8 IT IS FURTHER ORDERED, based on this Order and the Order of August 30, 2005
9 (doc. # 59), that the Clerk enter judgment in favor of Defendants and that Plaintiffs take
10 nothing. The Clerk shall terminate this action.

11 DATED this 12th day of July, 2007.

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13 Neil V. Wake
14 United States District Judge

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